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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,310	12/29/2000	Benjamin N. Eldridge	P34D1-US	8359

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EXAMINER

ARBES, CARL J

ART UNIT

PAPER NUMBER

3729

DATE MAILED: 08/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/753,310

Applicant(s)

ELDRIDGE ET AL.

Examiner

C. J. Arbes

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 42, 43 and 48-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42, 43 and 48-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 3729

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States.

Claims 42, 43 and 48-50 are rejected under 35 U.S.C. 102(a and d) as being clearly anticipated by WO 95/14314; hereinafter '314. (Note: The inventors of the '314 are not the same as those on the present application. Why isn't Mrss Eldridge and Grube listed as inventors on the '314)?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 42, 43 and 48-50 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Yanof et al..

Yanof et al teach a method of manufacturing a probe card having probes. A layer of resist is placed onto a plated substrate. The resist is subjected to radiation which causes angled, tapered holes through the resist. A metal is electroplated on the exposed portions of the plating base and fills the tapered openings. The remaining resist is then removed. It would have been obvious to that the probes have spring-like characteristics inasmuch as this quality is what will be desirable for the use is probe

Art Unit: 3729

cards. With respect to the limitation of the sacrificial substrate ( or plating layer) being removed after the contacts provided on the substrate, it is held to be mere design choice that this would be the sequence of events. That is there is no specific problem or purpose that applicants address which would impart patentability to this limitation *vis-a-vis* Yanof et al on this issue. With respect to claims 43 and 49 it is also held to be mere design choice that the electronic component onto which the spring contact elements are mounted is a space transformer. The method taught by Yanof et al remains the same. Only the article onto which the probes are attached is different.

Claims 42, 43 and 48-50 are further rejected under 35 U.S.C. 103(a) as being unpatentable over '314.

The '314 teaches a method of assembling an interconnection contact structure assembly including an electronic component. Probes are formed into flexible elongated elements by plating.. In one embodiment a sacrificial layer of Aluminum is provided into which a plurality of holes is formed. Conducting material is filled into the holes. A flexible elongate element is formed. The Aluminum layer is covered with a resist. After the contact structure has been completed, the resist is removed and the sacrificial layer is removed. The '314 also teaches making a plurality of probes or contacts with the use of a sacrificial member and thereafter gang transferring a plurality of contacts onto a package prior to placing a semiconductor chip in a package.

Any inquiry concerning this communication should be directed to C. J. Arbes at telephone number (703)308-1857.



**CARL J. ARBES**  
**PRIMARY EXAMINER**